

BRIEFING
REGIONAL ADMINISTRATOR, REGION 4
ASSESSMENT & CLEANUP CRITERIA
RADIOLOGICAL CONTAMINATION ASSOCIATED WITH
FL PHOSPHATE MINING
January 20, 2006

*****DELIBERATIVE PROCESS*****FOIA EXEMPT*****DO NOT RELEASE*****

Purpose: Overview of process used to develop concept paper; criteria evaluated; and results presented in a "Concept Paper".

☐ **BRIEFING PAPER OBJECTIVE**

- Review and evaluate various criteria used in the assessment and cleanup of radium contaminated soils
- Develop potential criteria that are consistent with and/or considers the following:
 - CERCLA and the NCP
 - OSWER Guidance
 - Protective of Public Health as Evaluated by ATSDR
 - Criteria from ORIA; State of Florida; other Federal Agencies; and literature

☐ **CRITERIA EVALUATION PROCESS**

- Identification and review of all criteria relevant for the assessment and evaluation of radium contaminated soil and gamma radiation
- Criteria assembled from EPA OSWER and ORIA; ATSDR; DOE; DOD; various southern States; Nuclear Regulatory Commission (NRC); International Council on Radiation Protection (ICRP); National Council on Radiation Protection (NCRP); and Conference of Radiation Control Program Directors (CRCPD)
- Consultation with the following:
 - Stuart Walker, OSWER
 - Schatzi Fitz-James, ORIA
 - Michael Boyd, ORIA
 - Bill Cibulas, Dir., Div. of Health and Consultation, ATSDR (and other staff)
 - Carl Blair and Bob Safay, Div. of Regional Operations, ATSDR
 - Colleen Castille, Secretary FDEP and Lisa Conti, Div. Dir, FDOH consulted June 2005

☐ **EVALUATION RESULTS**

- Uranium Mill Tailings Radiation Control Act (UMTRCA) criterion of 5 pCi/g of Ra²²⁶ primary ARAR used in Superfund cleanups
- ATSDR, if formally consulted, would conclude that the 5 pCi/g ARAR is protective
- ATSDR would use a "maximum risk level" of 100 mRem/yr to evaluate if gamma exposures from Ra²²⁶ pose any observable health effects
- Department of Homeland Security (DHS) Protective Action guides not applicable to Superfund cleanups
- ORIA criteria for the protection of public health from point sources (i.e., 15 mRem/yr for Yucca Mtn.) results in equivalent risk level as the 5 pCi/g criterion, but per OSWER guidance is not applicable to Superfund cleanups



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